

Title (en)

INDUCTION HEATING TYPE COOKTOP FOR ESTIMATING TEMPERATURE OF THIN FILM

Title (de)

INDUKTIONSKOCHFELD ZUR SCHÄTZUNG DER TEMPERATUR EINER DÜNNSCHICHT

Title (fr)

PLAQUE DE CUISSON DE TYPE CHAUFFAGE PAR INDUCTION POUR ESTIMER LA TEMPÉRATURE DE LA COUCHE MINCE

Publication

EP 3869912 A1 20210825 (EN)

Application

EP 20197704 A 20200923

Priority

KR 20200019908 A 20200218

Abstract (en)

An induction heating type cooktop includes: a case, a cover plate coupled to a top of the case and having an upper plate that is configured to support a target object, a thin film disposed on at least one of a top of the upper plate or a bottom of the upper plate, a working coil provided in the case and configured to inductively heat the thin film, a memory storing information on one or more correlations between a temperature of the thin film and a plurality of components of an equivalent circuit associated with the thin film, the plurality of components including an inductor component and a resistor component, and a controller configured to operate the working coil and determine estimated temperature information corresponding to the inductor component and the resistor component of the equivalent circuit.

IPC 8 full level

H05B 6/06 (2006.01)

CPC (source: EP KR US)

H05B 6/04 (2013.01 - US); **H05B 6/062** (2013.01 - EP KR US); **H05B 6/1209** (2013.01 - KR); **H05B 6/1245** (2013.01 - US); **H05B 2206/022** (2013.01 - US); **H05B 2213/04** (2013.01 - KR); **H05B 2213/07** (2013.01 - EP KR); **Y02B 40/00** (2013.01 - EP)

Citation (search report)

- [A] JP 2002056959 A 20020222 - MATSUSHITA ELECTRIC IND CO LTD
- [A] DE 10127051 A1 20021212 - SCHOTT GLAS [DE]
- [A] DE 102015002201 A1 20160825 - OBZ INNOVATION GMBH [DE]

Cited by

EP4164334A1; EP4274384A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 3869912 A1 20210825; **EP 3869912 B1 20221207**; EP 4164333 A1 20230412; KR 20210105217 A 20210826; US 2021259060 A1 20210819

DOCDB simple family (application)

EP 20197704 A 20200923; EP 22211399 A 20200923; KR 20200019908 A 20200218; US 202017006464 A 20200828